UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
INSECTICIDE DIVISION

Patent List No. 31

A LIST OF

UNITED STATES PATENTS

Issued from 1917 to 1933 inclusive

relating to

HAND PUMP ATOMIZER TYPE SPRAYERS

Compiled by

R. C. Roark

Washington, D.C.
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A LIST OF UNITED STATES PATENTS ISSUED FROM 1917 TO 1933, INCLUSIVE, RELATING TO HAND PUMP ATOMIZER TYPE SPRAYERS

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Insecticide Division, Bureau of Entomology and Plant Quarantine

Thirty-eight devices are mentioned in this list.

Every effort has been made by the compiler to make this list of patents complete and no discrimination is intended against any patent mention of which is inadvertently omitted.

The Department of Agriculture assumes no responsibility for the merits or workableness of any of the patents, nor does it recommend any of the inventions listed.

1,282,818 (Oct. 29, 1918; appl. July 31, 1918). SPRAYING-DEVICE ATTACHMENT. Gideon E. Hall, Milford, Conn. - This attachment for a sprayer for plants and vegetables enables the operator to manipulate the sprayer in an erect position, without stooping, to spray the under side of plants.

1,300,823 (Apr. 15, 1919; appl. July 17, 1917). SPRAYING APPARATUS. Arthur V. Dickey, Seattle, Wash. - This light, hand operated sprayer employs compressed air to spray liquid, or a mixture of liquid and air for disinfecting purposes, destroying insects, and other uses.

1,377,009 (May 3, 1921; appl. Sept, 19, 1916). PROCESS OF AND APPARATUS FOR APPLYING LIQUID TO SURFACES. Clement E. Dunn, Burlingame, Calif. - This compressed air-operated device is intended to spray liquids or semi-liquids such as disinfectant, spraying solution, etc.

1,397,851 (Nov. 22, 1921; appl. Nov. 29, 1920). SPRAYER. Robert A. Bachmann, Pittsburgh, Pa. - This sprayer for insecticides comprises a self-contained pump and reservoir of sheet metal.

1,488,125 (Mar. 25, 1924; appl. Jan. 22, 1923). SPRAYER. Alvin H. Kline, Cedar Rapids, Iowa. - This sprayer which can be used for treating plants with poisonous liquids is operated by compressed air.

1,559,843 (Nov. 3, 1925; appl. July 17, 1924). SPRAYER WITH AIR CHAMBER AND TRANSVERSE TANK. Henry E. Brandt, North St. Paul, Minn. - Dobbins Mfg. Co., North St. Paul, Minn. - This hand sprayer for insecticides and other liquids has a hand pump with which to build up the desired air pressure and a hand-operated valve for controlling the spray.

1,622,213 (Mar. 22, 1927; appl. July 21, 1925). LIQUID SPRAYER. Frank T. Stewart and Walter W. Stewart, Sacramento, Calif. - This sprayer for liquids suitable for destroying insects or the like, can be actuated by a power blower or a manually operated blower.

1,635,069 (July 5, 1927; appl. Jan. 30, 1926). SPRAYER. Adolph G. Bulle, Habana, Cuba. - This hand sprayer is designed to spray insecticide or other materials in liquid or powder form.

1,637,113 (July 26, 1927; appl. Nov. 24, 1925). LIQUID ATOMIZER. Charles Hurley, Jersey City, N. J. - Continental Can Co., Inc., New York, N. Y. - A self-contained sprayer for insecticides is described.

1,639,294 (Aug. 16, 1927; appl. Jan. 24, 1925). SPRAYER. Herbert D. Hudson, Minneapolis, Minn. - This hand-operated sprayer of the cylinder and piston type for fly-destroying solutions, disinfectants, germicides and the like, is provided with means for preventing the liquid from leaking or running over the exterior of the sprayer.

1,639,297 (Aug. 16, 1927; appl. Dec. 6, 1923). SPRAYER. Anton W. Kegler, Minneapolis, Minn. - A hand-operated sprayer of the cylinder and pump type, adapted for spraying fly-destroying solutions, disinfectants, germicides and the like is described.

Reissue 16,961 (May 15, 1928; appl. Nov. 16, 1917; original 1,639,297 Aug. 16, 1927; appl. Dec. 6, 1923). SPRAYER. Anton W. Kegler, Minneapolis, Minn. - A hand-operated sprayer of the cylinder and pump type for fly-destroying solutions, disinfectants, germicides and the like is described.

1,684,661 (Sept. 18, 1928; appl. Oct. 7, 1926). SPRAYING DEVICE. Colin Brown, Rochester, N. Y. - This hand sprayer is of the type used for projecting liquids upon plants, or in corresponding environments, for the purpose of killing bugs and insects.

1,699,016 (Jan. 15, 1929; appl. Sept. 13, 1926; renewed July 29, 1927). SHIPPING INSECTICIDE-CONTAINER SPRAY GUN. Frank D. Pelot, Dallas, Tex. - A sheet metal combination shipping container and spray gun for liquid insecticide is described.

1,705,398 (Mar. 12, 1929; appl. June 8, 1927). SPRAYING MACHINE. Emery M. Foster, Southgate, Calif. - This hand sprayer is adapted for spraying vegetation with liquid, whether it be pure solution, emulsion, suspension or semi-solid. A suspension of tobacco leaves in water is mentioned.

1,712,617 (May 14, 1929; appl. Feb. 17, 1926). AIR-OPERATED SPRAYING MEANS. Frank A. Howarth, New York, N. Y. - This air-operated spray device can be used for disinfectants.

1,713,902 (May 21, 1929; appl. May 11, 1928). SPRAYER ATTACHMENT FOR VACUUM CLEANERS. Frank C. Hartman, Mansfield, Ohio. - Hartman Electrical Mfg. Co., Mansfield, Ohio. - A sprayer attachment for vacuum cleaners suitable for use with insecticide, disinfectant or any other liquid is described.

1,716,301 (June 4, 1929; appl. June 14, 1926). HAND SPRAYER. Colin Brown, Rochester, N. Y. - E. C. Brown Co., Rochester, N. Y. - A cylinder and pump type hand sprayer for applying liquids and powder to plants and shrubs is described. An attachment holds the sprayer upright when laid on a table or other flat surface.

1,723,403 (Aug. 6, 1929; appl. Mar. 30, 1928). SPRAYER. Colin Brown, Rochester, N. Y. - E. C. Brown Co., Rochester, N. Y. - This hand sprayer of the type used for spraying plants and killing flies and other vermin through the application of a liquid solution is provided with a drip pan for returning excess liquid to the reservoir.

1,723,715 (Aug. 6, 1929; appl. Mar. 30, 1928). SPRAYING DEVICE. Gilbert C. Waters, Jr., Rochester, N. Y. - E. C. Brown Co., Rochester, N. Y. - This hand sprayer for spraying liquids upon plants, or exterminating flies or other vermin, is provided with means for regulating the quality of the spray delivered.

1,726,741 (Sept. 3, 1929; appl. Jan. 4, 1928). ACCESSORY FOR VACUUM CLEANERS. Leo P. Keller, Columbus, Ohio. - This attachment for vacuum cleaners utilizes the blower of the cleaner for generating and directing a germicide and insecticide spray to any desired point of application.

1,738,757 (Dec. 10, 1929; appl. Sept. 30, 1927). SPRAYER AND THE LIKE. Herbert J. Bragdon, Madison, Wis. - Wisco Mfg. Co., Madison, Wis. - This sprayer for insecticides, germicides and other similar materials in homes can be operated by the blast from a vacuum cleaner.

1,738,863 (Dec. 10, 1929; appl. Apr. 21, 1928). SPRAYER AND THE LIKE. Herbert J. Bragdon, Chicago, Ill. - Wisco Mfg. Co., Madison, Wis. - This sprayer for use with a vacuum cleaner can be used for spraying liquid germicides and similar materials and also for powders.

1,768,062 (June 24, 1930; appl. June 4, 1928). SPRAYING DEVICE. Grover L. Hill, Bagley, Wis. - This device for spraying insecticide solution on animals is operated from a power driven pump. By using suction, it can also be employed as a milking machine.

1,787,998 (Jan. 6, 1931; appl. Oct. 6, 1928). SPRAY. John F. Schylander, Chicago, Ill. - This device for spraying disinfectants, fungicides, insecticides, etc., can be operated by any convenient source of air pressure (vacuum cleaner, air pump, or compressed air reservoir.)

1,788,188 (Jan. 6, 1931; appl. Feb. 28, 1927). SPRAYER. Fred A. Cuff, Minneapolis, Minn. - Hudson Mfg. Co., Minneapolis, Minn. - A hand sprayer for insecticides is described.

1,788,223 (Jan. 6, 1931; appl. Sept. 26, 1927). SPRAYER. Otto Wisner, Lowell, Mich. - Lowell Specialty Co., Lowell, Mich. - A sprayer or atomizer for liquids such as fly or insect destroying solutions is described.

1,792,802 (Feb. 17, 1931; appl. Aug. 23, 1928). SPRAYER CONSTRUCTION. Henry E. Brandt, St. Paul, Minn. - Dobbins Mfg. Co., North St. Paul, Minn. - A hand sprayer particularly designed for insecticides is described.

1,794,186 (Feb. 24, 1931; appl. Sept. 8, 1927; in France Aug. 4, 1927). PORTABLE ATOMIZER FOR LIQUIDS OF ALL KINDS. Renee M.-L. Lemoine, nee Trouillet, La Buissonniere, Near Perriers-on-Andelle, France. - This atomizer for liquids, such as insecticides, utilizes a compressed or liquid gas bottle for its operating pressure. The general principle of its operation is described in U. S. patent 1,742,604.

1,809,073 (June 9, 1931; appl. Oct. 12, 1928). SPRAY. John F. Schylander, Chicago, Ill. - This sprayer, operable from any suitable source of air pressure, is adapted for producing a spray of finely atomized liquid material such as disinfectant, fungicides and insecticides, finely powdered material, etc.

1,812,207 (June 30, 1931; appl. Aug. 19, 1927). ATOMIZER ATTACHMENT FOR VACUUM CLEANERS. Charles Keller, Warren, Ind. - An atomizer attachment for vacuum cleaners suitable for spraying liquid disinfectants or insecticides is described.

1,820,544 (Aug. 25, 1931; appl. Dec. 17, 1928). PAINT SPRAYER. John F. Schylander, Chicago, Ill. - A sprayer operable from any convenient source of air pressure and suitable for spraying disinfectant, insecticides and fungicides, finely divided powdered material, etc., is described.

1,857,084 (May 3, 1932; appl. May 28, 1928). AIR PRESSURE DISPENSER. Joseph F. Geotz, Dayton, Ohio. - Columbia Mixers Corp., Hamilton, Ohio. - Air pressure is used to agitate and discharge liquids such as disinfectant, insecticide, spray solution and the like from this device.

1,875,729 (Sept. 6, 1932; appl. Dec. 5, 1927). SPRAYING DEVICE. Wolfgang Hermann, Chicago, Ill. - Metal Specialties Mfg. Co., Chicago, Ill. - A hand-carried device for spraying insecticide liquids is described.

1,881,625 (Oct. 11, 1932; appl. Feb. 24, 1930). SPRAY GUN. Howard W. Jelliffe and Walter H. Abbott, Cleveland, Ohio. - Utility Products Co., Cleveland, Ohio. - A spray gun suitable for spraying liquids and powders such as insecticides is described. Means are provided whereby the spray can be laterally elongated.

1,919,153 (July 18, 1933; appl. July 26, 1929). SPRAYING DEVICE. William H. Andrews, Cleveland, Ohio. - Irene E. Andrews. - This device for spraying liquids or powders such as insect powders, operates at either low or high air pressures and volumes.

1,923,059 (Aug. 15, 1933; appl. Dec. 17, 1930). SPRAYER. Gordon C. Pharo, Traverse City, Mich. - "Acmeline" Mfg. Co., Traverse City, Mich. - An improved hand sprayer, adapted especially for outdoor use such as the spraying of trees, shrubs and the like, is described.

1,938,036 (Dec. 5, 1933; appl. Mar. 25, 1932). MEANS FOR REMOVING LIQUID MIXTURES FROM PRESSURE VESSELS. Thomas C. Martin and Simon Meyer, South Charleston, W. Va. - Carbide & Carbon Chemicals Corp., New York, N. Y. - A device for the removal of a substantially uniform proportion of a mixture of fluids having widely different vapor pressures and liquid and gas phases from a container, in which the mixture is confined under pressure is described. Such a mixture is one of nine parts carbon dioxide and one part ethylene oxide.

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